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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,046

07/13/2005

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EXAMINER

MARTIN, ANGELA J

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

01/09/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/542,046	Applicant(s) FUJIMOTO ET AL.	
	Examiner Angela J. Martin	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This Office Action is responsive to the Remarks filed on October 15, 2007. Applicant's arguments, filed 10/15/07, have been fully considered and are persuasive. The previous rejection has been withdrawn. However, a new rejection is presented for the following reasons of record.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inamasu, JP 07-142093 (machine translation), in view of Kazuhara et al., JP 2002-145623 (machine translation), further in view of Inagaki et al., JP 2002-203552 (machine translation).

Rejection of claims 1, 5 drawn to a nonaqueous electrolyte secondary battery.

Inamasu teaches a nonaqueous electrolyte secondary battery using a material capable of storing and releasing lithium as negative electrode material (abstract) and a lithium transition metal complex oxide containing Ni and Mn as the transition metal and having a layered structure as positive electrode material (0004), said secondary battery being characterized in that said lithium transition metal complex oxide gives a pH value

within the range of 9.0 -11.0 when it is immersed in purified water in the amount of 5 g per 100 ml of the purified water ( $\text{pH} < 10$ )(claim 1). The nonaqueous electrolyte secondary battery as recited in claim 1, characterized in that said lithium transition metal complex oxide is represented by the formula  $\text{Li}_a\text{Mn}_x\text{Ni}_y\text{Co}_z\text{O}_2$  (wherein a, x, y and z are numbers satisfying  $0 < a \leq 1.2$ ,  $x + y + z = 1$ ,  $x > 0$ ,  $y > 0$  and  $z \sim 0$ ) (0004).

Kazuhashi et al., teach a nonaqueous electrolyte secondary battery using a material capable of storing and releasing lithium as negative electrode material and a lithium transition metal complex oxide containing Ni and Mn as the transition metal and having a layered structure as positive electrode material (abstract), said secondary battery being characterized in that said lithium transition metal complex oxide has a BET specific surface area of less than  $3 \text{ m}^2/\text{g}$  (0037). The nonaqueous electrolyte secondary battery as recited in claim 1, characterized in that said lithium transition metal complex oxide is represented by the formula  $\text{Li}_a\text{Mn}_x\text{Ni}_y\text{Co}_z\text{O}_2$  (wherein a, x, y and z are numbers satisfying  $0 < a \leq 1.2$ ,  $x + y + z = 1$ ,  $x > 0$ ,  $y > 0$  and  $z \sim 0$ ) (abstract). The nonaqueous electrolyte secondary battery as recited in claim 1, characterized in that said lithium transition metal complex oxide contains substantially the same amount of nickel and manganese (0036). The nonaqueous electrolyte secondary battery as recited in claim 1, characterized in that said lithium transition metal complex oxide has a BET specific surface area of not greater than  $2 \text{ m}^2/\text{g}$  (0037). The nonaqueous electrolyte secondary battery as recited in claim 5, characterized in that said lithium transition metal complex oxide contains substantially the same amount of nickel and manganese (0036). The nonaqueous electrolyte secondary battery as recited in claim 5,

characterized in that said lithium transition metal complex oxide has a BET specific surface area of not greater than 2 m<sup>2</sup>/g (0037). The nonaqueous electrolyte secondary battery as recited in claim 6, characterized in that said lithium transition metal complex oxide has a BET specific surface area of not greater than 2 m<sup>2</sup>/g (0037). The nonaqueous electrolyte secondary battery as recited in claim 8, characterized in that said lithium transition metal complex oxide has a BET specific surface area of not greater than 2 m<sup>2</sup>/g (0037).

Inagaki et al., teach an outer casing of said battery is composed at least partly of an aluminum alloy or aluminum laminate film having a thickness of up to 0.5 mm and susceptible to deformation in case of internal pressure buildup due to gas generation within the battery during storage (0084-0088).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to insert the teachings of Kazuhara et al., and Inagaki et al., into the teachings of Inamasu et al., because each of the references teach a lithium secondary battery comprising a lithium transition metal complex oxide, wherein Kazuhara et al., employs a lithium transition metal complex oxide contains substantially the same amount of nickel and manganese to provide a lithium secondary battery having high safety and high capacity; While Inagaki et al., provide an outer casing of aluminum, which is lightweight and intercepts moisture (0086) and discloses that if the thickness of the container (sheathing) material exceeds 0.5 mm, the capacity per weight of the cell will fall (0087).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Itagaki et al., U.S., Pat. No. 6,767,671 B2, teach specific surface area of the lithium transition metal complex oxide.

***Response to Arguments***

5. Applicant's arguments with respect to above claims have been considered but are moot in view of the new ground(s) of rejection.

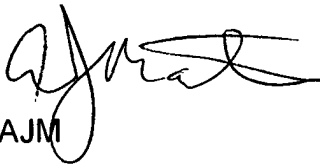
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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